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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/401,874 09/23/99 ENGEL

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TM02/0730

EXAMINER

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ART UNIT	PAPER NUMBER
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2184
DATE MAILED:

07/30/01

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SR

Office Action Summary

Application No.

09/401,874

Applicant(s)

Ferdinand Engel

Examiner

Dien-Hinh Le

Group Art Unit

2184

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE THREE(3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 05/14/01.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-31 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-31 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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Part .III DETAILED ACTION

Specification

1. This Office Action is in response to the amendment filed May 14, 2001 in application 09/401,874.
2. Claims 1-31 are again presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

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4. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carusone, Jr. et al. (US Patent 5,157,667 hereafter referred to as Carusone) in view of Reynolds et al. (US Patent 6,138,161 hereafter referred to as Reynolds).

As per claim 1:

Carusone substantially teaches the invention. Carusone teaches:

- a method of identifying a failed device in a network [abstract, fig. 1, col. 1, lines 10-14];
- attempting communication with a device [col. 6, lines 40-45];
- determining if a device has an active neighbor if attempt to communication with failed device [abstract, col. 5, line 8-37 and col. 8, lines 61-68];
- identifying the device as a failed device if the device has an active neighbor [col. 6, lines 11-25 and col. 9, lines 8-40].

Carusone does not explicitly teach:

- a device as a target device.

However, Carusone does disclose capability of:

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- a central service processor (i.e., target device) within a networking switching environment [col. 9, lines 33-64];

- central reporting location for linking networking devices or units [col. 16, lines 60-67].

In addition, Reynolds discloses capabilities of:

- communication network comprising router as target device [abstract, col. 4, lines 45-62];
- communication between the target device and the initiator via a network to eliminating the loss of data or failure [col. 4, lines 35-44].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first to realize the Carusone's method and apparatus for performing fault isolation and failure analysis in a switching networking environment having capabilities of neighboring devices data analysis, and devices failure detection, more specifically, central service processor, as being the target device within a network as claimed by Applicant. This is because the Carusone's device failure detection, isolation, and analysis within a networking system would have included such target device (i.e., central service processor) since the target device or central service processor is used as a base target or element to

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engineering and determining the cause of network failure; second, one would modify the Caurson's performing fault isolation and failure analysis to explicitly including the target device with capability of eliminating the failure or data loss as taught by Reynolds in supporting the networking operation system environment. By utilizing this approach, first, neighboring network devices can be related and accurately pinpointed or determined the failure device so that the network can isolate the problem and prevent any service disruption for ensuring error detected, isolated and corrected within or among communication devices via neighboring device functionality in providing data fidelity and reliability; second, the data/error control networking system (i.e., target device among neighboring communication devices) can operate with a high reliability, availability, and flexibility environment which eventually will increase its performance, such as data throughput between internal and external devices.

As per claim 2:

Carusone substantially teaches the invention. Carusone teaches:

- a method of identifying a failed device in a network [abstract, fig. 1, col. 1, lines 10-14].

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Carusone does not explicitly teach:

- sending packet data to target device.

However, Carusone does disclose capability of:

- LAN traffics sent to central service processor for processing error failure report [col. 9, lines 28-40];

In addition, Reynolds disclose capabilities of:

- communication network comprising router as target device [abstract, col. 4, lines 45-62];
- communication between the target device and the initiator via a network to eliminating the loss of data or failure [col. 4, lines 35-44].
- sending data including addresses to target device [col. 4, lines 45-62].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize the Carusone's method and apparatus for performing fault isolation and failure analysis in a switching networking environment having capability of LAN traffics sent to central service processor for processing error failure

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report as being sending packet data to target device as claimed by Applicant. This is because the Carusone's device failure detection, isolation, and analysis within a networking system would have included such data/packet sending and responding to and from target device (i.e., central service processor) since the target device or central service processor issued as a base target or element to engineering and determining the cause of network failure. It is further obvious because the Carusone's failure device analysis method explicitly uses the device neighboring function to determining the failure. Therefore, the use of data/packet exchange among communication devices and central processor or target device is well known to a person having ordinary skill in the art and does not require undue experiment; second, one would modify the Carusone's performing fault isolating and failure analysis to explicitly including the sending data including the addresses to target device as taught by Reynolds in supporting the fail-over device.

As per claims 3-4:

Carusone substantially teaches the invention. Carusone teaches:

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- a method of identifying a failed device in a network.
[abstract, fig. 1, col. 1, lines 10-14];
- attempting communication with a device [col. 6, lines 40-45];
- determining if a device has an active neighbor if attempt to communication with failed device [abstract, col. 5, line 8-37 and col. 8, lines 61-68];
- identifying the device as a failed device if the device has an active neighbor [col. 6, lines 11-25 and col. 9, lines 8-40].
- a central service processor (i.e., target device) within a networking switching environment [col. 9, lines 33-64];
- central reporting location for linking networking devices or units [col. 16, lines 60-67].

As per claim 5:

Carusone substantially teaches the invention. Carusone teaches:

- a method of identifying a failed device in a network
[abstract, fig. 1, col. 1, lines 10-14];
- attempting communication with a device [col. 6, lines 40-45];

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- determining if a device has an active neighbor if attempt to communication with failed device [abstract, col. 5, line 8-37 and col. 8, lines 61-68];

- identifying the device as a failed device if the device has an active neighbor [col. 6, lines 11-25 and col. 9, lines 8-40].

- a central service processor (i.e., target device) within a networking switching environment [col. 9, lines 33-64];

- a neighboring table for the network [col. 12, lines 9-25];

- consulting the neighboring table to [col. 9, lines 13-40].

In addition, Reynolds discloses:

- communication network comprising router as target device [abstract, col. 4, lines 45-62];

- communication between the target device and the initiator via a network to eliminating the loss of data or failure [col. 4, lines 35-44].

- triplet table comprising triplet of data for initiator and target device [col. 4, lines 62 through col. 5, lines 14].

As per claims 6-7:

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Even though, Carusone does not explicitly teach capability of:

- polling target device.

However, Carusone does disclose capability of:

- a timing mechanism used for isolating failure [col. 10, lines 55-64];
- a timer-based mechanism for precisely isolating a fault [col. 4, lines 61-65].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to realize the Carusone's method and apparatus for performing fault isolation and failure analysis in a switching networking environment having capability timing mechanism used for precisely isolating a fault as being polling target device as claimed by Applicant. This is because the Carusone's isolating fault timing mechanism used for device failure detection, isolation, and analysis within a networking system would have included such device polling function since this polling capability is operated based on a timing manner. It is further obvious because this polling capability is notoriously well known in the art of computing arena. For example, Desnoyer et al. (U.S. patent 5,923,840) explicitly disclosure the periodically polling

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of device to determine active device within a computer networking environment.

As per claims 8-9:

Carusone substantially teaches the invention. Carusone teaches:

- a method of identifying a failed device in a network [abstract, fig. 1, col. 1, lines 10-14];
- network address of the neighboring device [col. 8, lines 33-45];
- determining if a device has an active neighbor if attempt to communication with failed device [abstract, col. 5, line 8-37 and col. 8, lines 61-68];
- identifying the device as a failed device if the device has an active neighbor [col. 6, lines 11-25 and col. 9, lines 8-40].
- a central service processor (i.e., target device) within a networking switching environment [col. 9, lines 33-64];
- a neighboring table for the network [col. 12, lines 9-25];
- consulting the neighboring table to [col. 9, lines 13-40];
- table contains Network information [col. 12, lines 9-25].

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As per claim 10:

Carusone substantially teaches the invention. Carusone teaches:

- a method of identifying a failed device in a network [abstract, fig. 1, col. 1, lines 10-14];
- switches [col. 8, line 49];
- processors [col. 8, line 53];
- control units [col. 8, lines 48].

As per claim 11:

Carusone substantially teaches the invention. Carusone teaches:

- a method of identifying a failed device in a network [abstract, fig. 1, col. 1, lines 10-14];
- attempting communication with a device [col. 6, lines 40-45];
- determining if a device has an active neighbor if attempt to communication with failed device [abstract, col. 5, line 8-37 and col. 8, lines 61-68];
- identifying the device as a failed device if the device has an active neighbor [col. 6, lines 11-25 and col. 9, lines 8-40].

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Carusone does not explicitly teach:

- sending packet data to target device.

However, Carusone does disclose capability of:

- a central service processor (i.e., target device) within a networking switching environment [col. 9, lines 33-64];
- central reporting location for linking networking devices or units [col. 16, lines 60-67].
- LAN traffics sent to central service processor for processing error failure report [col. 9, lines 28-40];

In addition, Reynolds disclose capabilities of:

- communication network comprising router as target device [abstract, col. 4, lines 45-62];
- communication between the target device and the initiator via a network to eliminating the loss of data or failure [col. 4, lines 35-44];
- sending data including addresses to target device [col. 4, lines 45-62].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize the Carusone's method and apparatus for

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performing fault isolation and failure analysis in a switching networking environment having capability of LAN traffics sent to central service processor for processing error failure report as being sending packet data to target device as claimed by Applicant. This is because the Carusone's device failure detection, isolation, and analysis within a networking system would have included such data/packet sending and responding to and from target device (i.e., central service processor) since the target device or central service processor issued as a base target or element to engineering and determining the cause of network failure. It is further obvious because the Carusone's failure device analysis method explicitly uses the device neighboring function to determining the failure. Therefore, the use of data/packet exchange among communication devices and central processor or target device is well known to a person having ordinary skill in the art and does not require undue experiment; second, one would modify the Caurstone's performing fault isolating and failure analysis to explicitly including the sending data including the addresses to target device as taught by Reynolds in supporting the fail-over device.

As per claims 12-20:

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Due to the similarity of claims 12-20 to claims 1-10 except for an apparatus for identifying a failed device in a network instead of a method for identifying a failed device in a network; therefore, these claims are also rejected under the same rationale applied against claims 1-10. In addition, all of the limitations have been noted in the rejection as per claims 1-10.

As per claims 21-29:

These claims are the same as per claims 1-10 and 12-20. The only minor different is that this claim is directed to a computer program stored on a computer readable medium to identifying a failed device in a network instead of the method and apparatus for identifying a failed device in a network as described in 1-10 and 12-20, respectively. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to realized that a machine-readable storage medium is a necessary item for such networking system, more specifically, data communication or transmission among computer devices. Since the networking system obviously needs a means for instruction or code means resided within the machine-readable storage medium for performing the data storing, receiving, transmitting operation capability. Therefore, this claim is also rejected under the same rationale applied against claims 1-10 and 12-20.

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As per claims 30-31:

These claims are similar to claims 1-10. therefore, these claims are also rejected under the same rationale applied against claims 1-10. In addition, all of the limitations have been noted in the rejection as per claims 1-10.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. A shortened statutory period for response to this action is set to expired THREE (3) months, ZERO days from the date of this letter. Failure to respond within the period for response will cause the application to be abandoned. 35 U.S.C. 133.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (703) 305-9408. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel, can be reached on (703)305-9713. The fax phone number for this Group is (703) 305-9724.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231


or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 305-9724 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


**DIEU-MINH THAILÉ
PRIMARY EXAMINER
ART UNIT 2184**

DML
July 26, 2001